

**FLOW RATES OR QUANTITY FOR PLUMBING FIXTURES**

2022 GENERAL SESSION

STATE OF UTAH

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**LONG TITLE****General Description:**

This bill modifies provisions related to requirements for plumbing fixtures or fixture fittings.

**Highlighted Provisions:**

This bill:

- ▶ modifies the residential and plumbing code adopted by the state to address maximum flow rates or quantity for certain plumbing fixtures or fixture fittings; and
- ▶ makes technical amendments.

**Money Appropriated in this Bill:**

None

**Other Special Clauses:**

This bill provides a special effective date.

**Utah Code Sections Affected:**

AMENDS:

**15A-3-205**, as last amended by Laws of Utah 2019, Chapter 20

**15A-3-306**, as last amended by Laws of Utah 2019, Chapter 20

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*Be it enacted by the Legislature of the state of Utah:*

Section 1. Section **15A-3-205** is amended to read:

**15A-3-205. Amendments to Chapters 26 through 35 of IRC.**

(1) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized, provided that the source has been developed in accordance with Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction."

(2) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required. Every

33 building in which plumbing fixtures are installed and all premises having drainage piping shall  
34 be connected to a public sewer where the sewer is accessible and is within 300 feet of the  
35 property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage  
36 disposal system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as  
37 administered by the Department of Environmental Quality, Division of Water Quality."

38 (3) In IRC, Section P2705, Item 5, the words "lavatory" and "lavatories" are deleted.

39 (4) In IRC, Section P2705, a new Item 6 is added as follows: "6. Lavatories. A lavatory  
40 shall not be set closer than 12 inches from its center to any side wall or partition. A lavatory  
41 shall be provided with a clearance of 24 inches in width and 21 inches in depth in front of the  
42 lavatory to any side wall, partition, or obstruction." Remaining item numbers are renumbered  
43 accordingly.

44 (5) In IRC, Section P2801.8, all words in the first sentence up to the word "water" are  
45 deleted.

46 (6) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow assembly  
47 testing. The premise owner or the premise owner's designee shall have backflow prevention  
48 assemblies operation tested in accordance with administrative rules made by the Drinking  
49 Water Board at the time of installation, repair, and relocation and at least on an annual basis  
50 thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be  
51 performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject  
52 to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker  
53 Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector  
54 Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and  
55 Reduced Pressure Detector Assembly. Third-party certification for backflow prevention  
56 assemblies will consist of any combination of two certifications, laboratory or field.  
57 Acceptable third-party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR.  
58 USC-FCCCHR currently provides the only field testing of backflow protection assemblies.  
59 Also see [www.drinkingwater.utah.gov](http://www.drinkingwater.utah.gov) and rules made by the Drinking Water Board."

60 (7) In IRC, Section P2902.1, the following subsections are added as follows:

61 "P2902.1.1 General Installation Criteria.

62 Assemblies shall not be installed more than five feet above the floor unless a permanent  
63 platform is installed. The assembly owner, where necessary, shall provide devices or structures

64 to facilitate testing, repair, and maintenance, and to insure the safety of the backflow  
65 technician.

66 P2902.1.2 Specific Installation Criteria.

67 P2902.1.2.1 Reduced Pressure Principle Backflow Prevention Assembly.

68 The reduced pressure principle backflow prevention assembly shall be installed as  
69 follows:

70 a. The assembly may not be installed in a pit.

71 b. The relief valve of the assembly shall not be directly connected to a waste disposal line,  
72 including a sanitary sewer, a storm drain, or a vent.

73 c. The assembly shall be installed in a horizontal position only, unless listed or approved for  
74 vertical installation in accordance with Section 303.4.

75 d. The bottom of the assembly shall be installed a minimum of 12 inches above the floor or  
76 ground.

77 e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or  
78 obstacle, and shall be readily accessible for testing, repair, and maintenance.

79 P2902.1.2.2 Double Check Valve Backflow Prevention Assembly.

80 A double check valve backflow prevention assembly shall be installed as follows:

81 a. The assembly shall be installed in a horizontal position only, unless listed or approved for  
82 vertical installation.

83 b. The bottom of the assembly shall be a minimum of 12 inches above the ground or floor.

84 c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or  
85 obstacle, and shall be readily accessible for testing, repair, and maintenance.

86 d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance  
87 between all sides of the vault, including the floor and roof or ceiling, with adequate room for  
88 testing and maintenance.

89 P2902.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker  
90 Assembly.

91 A pressure vacuum break assembly or a spill resistant pressure vacuum breaker assembly shall  
92 be installed as follows:

93 a. The assembly shall not be installed in an area that could be subject to backpressure or back  
94 drainage conditions.

- 95 b. The assembly shall be installed a minimum of 12 inches above all downstream piping and  
96 the highest point of use.
- 97 c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall  
98 be readily accessible for testing, repair, and maintenance.
- 99 d. The assembly shall not be installed below ground, in a vault, or in a pit.
- 100 e. The assembly shall be installed in a vertical position."

101 (8) In IRC, Table 2903.2, the following changes are made in the column titled  
102 "MAXIMUM FLOW RATE OR QUANTITY":

103 (a) In the row titled "Lavatory faucet" the text is deleted and replaced with "1.5 gpm at  
104 60 psi".

105 (b) In the row titled "Shower head" the text is deleted and replaced with "2 gpm at 80  
106 psi".

107 (c) In the row titled "Water closet" the text is deleted and replaced with "1.28 gallons  
108 per flushing cycle".

109 ~~[(8)]~~ (9) In IRC, Section 2903.5, at the beginning of the second sentence, insert "If  
110 installed,".

111 ~~[(9)]~~ (10) In IRC, Section P2903.9.3, the first sentence is deleted and replaced with the  
112 following: "Unless the plumbing appliance or plumbing fixture has a wall-mount valve, shutoff  
113 valves shall be required on each fixture supply pipe to each plumbing appliance and to each  
114 plumbing fixture other than bathtubs and showers."

115 ~~[(10)]~~ (11) IRC, Section P2910.5, is deleted and replaced with the following:  
116 "P2910.5 Potable water connections.

117 When a potable water system is connected to a nonpotable water system, the potable water  
118 system shall be protected against backflow by a reduced pressure backflow prevention  
119 assembly or an air gap installed in accordance with Section 2901."

120 ~~[(11)]~~ (12) IRC, Section P2910.9.5, is deleted and replaced with the following:  
121 "P2910.9.5 Makeup water.

122 Where an uninterrupted nonpotable water supply is required for the intended application,  
123 potable or reclaimed water shall be provided as a source of makeup water for the storage tank.  
124 The makeup water supply shall be protected against backflow by means of an air gap not less  
125 than 4 inches (102 millimeters) above the overflow or by a reduced pressure backflow

126 prevention assembly installed in accordance with Section 2902."

127 [~~(12)~~] (13) In IRC, Section P2911.12.4, the following words are deleted: "and  
128 backwater valves."

129 [~~(13)~~] (14) In IRC, Section P2912.15.6, the following words are deleted: "and  
130 backwater valves."

131 [~~(14)~~] (15) In IRC, Section P2913.4.2, the following words are deleted: "and backwater  
132 valves."

133 [~~(15)~~] (16) IRC, Section P3009, is deleted and replaced with the following:

134 "P3009 Connected to nonpotable water from on-site water reuse systems.

135 Nonpotable systems utilized for subsurface irrigation for single-family residences shall comply  
136 with the requirements of R317-401, UAC, Graywater Systems."

137 [~~(16)~~] (17) In IRC, Section P3103.6, the following sentence is added at the end of the  
138 paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the  
139 wall with an elbow pointing downward."

140 [~~(17)~~] (18) In IRC, Section P3104.4, the following sentence is added at the end of the  
141 paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain  
142 and floor sink installations when installed below grade in accordance with Chapter 30, and  
143 Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

144 Section 2. Section **15A-3-306** is amended to read:

145 **15A-3-306. Amendments to Chapter 6 of IPC.**

146 (1) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual  
147 water supply. Where a potable public water supply is not available, individual sources of  
148 potable water supply shall be utilized provided that the source has been developed in  
149 accordance with Utah Code, Sections 73-3-1, 73-3-3, and 73-3-25, as administered by the  
150 Department of Natural Resources, Division of Water Rights. In addition, the quality of the  
151 water shall be approved by the local health department having jurisdiction. The source shall  
152 supply sufficient quantity of water to comply with the requirements of this chapter."

153 (2) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are  
154 deleted.

155 (3) In IPC, Table 604.4, the following changes are made in the column titled  
156 "MAXIMUM FLOW RATE OR QUANTITY":

157 (a) In the row titled "Lavatory, private" the text is deleted and replaced with "1.5 gpm  
158 at 60 psi".

159 (b) In the row titled "Shower head" the text is deleted and replaced with "2 gpm at 80  
160 psi".

161 (c) In the row titled "Urinal" the text is deleted and replaced with "0.5 gallon per  
162 flushing cycle".

163 (d) In the row titled "Water closet" the text is deleted and replaced with "1.28 gallons  
164 per flushing cycle".

165 ~~[(3)]~~ (4) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated  
166 metering faucets for food service establishments. Self closing or manually operated metering  
167 faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the  
168 faucet."

169 ~~[(4)]~~ (5) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water  
170 pressure booster systems. Water pressure booster systems shall be provided as required by  
171 Section 606.5.1 through 606.5.11."

172 ~~[(5)]~~ (6) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited  
173 installation. In no case shall a booster pump be allowed that will lower the pressure in the  
174 public main to less than the minimum water pressure specified in Utah Administrative Code  
175 R309-105-9."

176 ~~[(6)]~~ (7) In IPC, Section 608.1, the words "and pollution" are added after the word  
177 "contamination."

178 ~~[(7)]~~ (8) In IPC, Section 608.1, the following subsections are added as follows:  
179 "608.1.1 General Installation Criteria.

180 An assembly shall not be installed more than five feet above the floor unless a permanent  
181 platform is installed. The assembly owner, where necessary, shall provide devices or structures  
182 to facilitate testing, repair, and maintenance and to insure the safety of the backflow technician.

183 608.1.2 Specific Installation Criteria.

184 608.1.2.1 Reduced Pressure Principle Blackflow Prevention Assembly.

185 A reduced pressure principle backflow prevention assembly shall be installed as follows:

186 a. The assembly shall not be installed in a pit or below grade where the relief port could be  
187 submerged in water or where fumes could be present at the relief port discharge.

- 188 b. The relief valve of the assembly shall not be directly connected to a waste disposal line,  
189 including a sanitary sewer, storm drain, or vent.
- 190 c. The assembly shall be installed in a horizontal position, unless the assembly is listed or  
191 approved for vertical installation in accordance with Section 303.4.
- 192 d. The bottom of each assembly shall be installed a minimum of 12 inches above the ground or  
193 the floor.
- 194 e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or  
195 obstacle, and shall be readily accessible for testing, repair, and maintenance.

196 608.1.2.2 Double Check Valve Backflow Prevention Assembly.

197 A double check valve backflow prevention assembly shall be installed as follows:

- 198 a. The assembly shall be installed in a horizontal position unless the assembly is listed or  
199 approved for vertical installation.
- 200 b. The bottom of the assembly shall be a minimum of 12 inches above the ground or the floor.
- 201 c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or  
202 obstacle, and shall be readily accessible for testing, repair, and maintenance.
- 203 d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance  
204 around all sides of the vault, including the floor and roof or ceiling, with adequate room for  
205 testing and maintenance.

206 608.1.2.3 Pressure Vacuum Breaker Assembly and Spill Resistant Pressure Vacuum Breaker  
207 Assembly.

208 A pressure vacuum breaker assembly and spill resistant pressure vacuum breaker assembly  
209 shall be installed as follows:

- 210 a. The assembly shall not be installed in an area that could be subject to backpressure or back  
211 drainage conditions.
- 212 b. The assembly shall be installed a minimum of 12 inches above all downstream piping and  
213 the highest point of use.
- 214 c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall  
215 be readily accessible for testing, repair, and maintenance.
- 216 d. The assembly shall not be installed below ground or in a vault or pit.
- 217 e. The assembly shall be installed in a vertical position."

218 [~~(8)~~] (9) In IPC, Section 608.3, the word "and" before the word "contamination" is

219 deleted and replaced with a comma and the words " or pollution" are added after the word  
220 "contamination" in the first sentence.

221 ~~[(9)]~~ (10) In IPC, Section 608.6, the words "with the potential to create a condition of  
222 either contamination or pollution or" are added after the word "substances."

223 ~~[(10)]~~ (11) In IPC, Section 608.7, the following sentence is added at the end of the  
224 paragraph: "Any connection between potable water piping and sewer-connected waste shall be  
225 protected by an air gap in accordance with Section 608.14.1."

226 ~~[(11)]~~ (12) IPC, Section 608.8, is deleted and replaced with the following: " 608.8 Stop  
227 and Waste Valves installed below grade. Combination stop-and-waste valves shall be  
228 permitted to be installed underground or below grade. Freeze proof yard hydrants that drain  
229 the riser into the ground are considered to be stop-and-waste valves and shall be permitted. A  
230 stop-and-waste valve shall be installed in accordance with a manufacturer's recommended  
231 installation instructions."

232 ~~[(12)]~~ (13) IPC, Section 608.14.3, is deleted and replaced with the following: "  
233 608.14.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with  
234 intermediate atmospheric vents shall conform to ASSE 1012 or CSA CAN/CSA-B64.3. These  
235 devices shall be permitted to be installed on residential boilers, without chemical treatment,  
236 where subject to continuous pressure conditions, and humidifiers in accordance with Section  
237 608.17.10. The relief opening shall discharge by air gap and shall be prevented from being  
238 submerged."

239 ~~[(13)]~~ (14) IPC, Section 608.14.4, is deleted.

240 ~~[(14)]~~ (15) IPC, Section 608.16.3, is deleted and replaced with the following: "  
241 608.16.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections  
242 to residential boilers only, without chemical treatment, and humidifiers shall be protected by a  
243 backflow preventer with an intermediate atmospheric vent."

244 ~~[(15)]~~ (16) IPC, Section 608.16.4, is deleted and replaced with the following: "  
245 608.16.4 Protection by a vacuum breaker. Openings and outlets shall be protected by  
246 atmospheric-type or pressure-type vacuum breakers. Vacuum breakers shall not be installed  
247 under exhaust hoods or similar locations that will contain toxic fumes or vapors. Fill valves  
248 shall be set in accordance with Section 425.3.1. Atmospheric Vacuum Breakers - The critical  
249 level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above

250 the flood level rim of the fixture or device. Pipe-applied vacuum breakers shall be installed not  
251 less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or device served.  
252 No valves shall be installed downstream of the atmospheric vacuum breaker. The atmospheric  
253 vacuum breaker shall not be installed where it may be subjected to continuous pressure for  
254 more than 12 consecutive hours at any time. Pressure Vacuum Breaker - The critical level of  
255 the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood  
256 level of the fixture or device."

257 ~~[(16)]~~ (17) In IPC, Section 608.16.4.2, the following is added after the first sentence:  
258 "Add-on-backflow prevention devices shall be non-removable. In climates where freezing  
259 temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow  
260 preventer shall be used."

261 ~~[(17)]~~ (18) In IPC, Section 608.17.1.2, the words "or ASSE 1024" are deleted.

262 ~~[(18)]~~ (19) IPC, Section 608.17.2, is deleted and replaced as follows: " 608.17.2  
263 Connections to boilers. The potable supply to a boiler shall be protected by an air gap or a  
264 reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or  
265 AWWA C511.

266 Exception: The potable supply to a residential boiler without chemical treatment may be  
267 equipped with a backflow preventer with an intermediate atmospheric vent complying with  
268 ASSE 1012 or CSA CAN/CSA-B64.3."

269 ~~[(19)]~~ (20) In IPC, Section 608.17.4.1, a new exception is added as follows:  
270 "Exception: All class 1 and 2 systems containing chemical additives consisting of strictly  
271 glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against  
272 backflow with a double check valve assembly. Such systems shall include written certification  
273 of the chemical additives at the time of original installation and service or maintenance."

274 ~~[(20)]~~ (21) IPC, Section 608.17.7, is deleted and replaced with the following: "  
275 608.17.7 Chemical dispensers. Where chemical dispensers connect to the water distribution  
276 system, the water supply system shall be protected against backflow in accordance with Section  
277 608.14.1, Section 608.14.2, Section 608.14.5, Section 608.14.6 or Section 608.14.8.  
278 Installation shall be in accordance with Section 608.1.2. Chemical dispensers shall connect to a  
279 separate dedicated water supply line, and not a sink faucet."

280 ~~[(21)]~~ (22) IPC, Section 608.17.8, is deleted and replaced with the following: "

281 608.17.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the  
282 water distribution system, the water supply system shall be protected against backflow in  
283 accordance with Section 608.14.1 or Section 608.14.2."

284 [~~(22)~~] (23) A new IPC, Section 608.17.11, is added as follows: " 608.17.11 Automatic  
285 and coin operated car washes. The water supply to an automatic or coin operated car wash  
286 shall be protected in accordance with Section 608.14.1 or Section 608.14.2."

287 [~~(23)~~] (24) IPC, Section 608.18, is deleted and replaced with the following: " 608.18  
288 Protection of individual water supplies. See Section 602.3 for requirements."

289 Section 3. **Effective date.**

290 This bill takes effect on July 1, 2022.